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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,904	08/16/2004	Hyo-Moon Park	F-8329	8752

28107 7590 11/07/2006
JORDAN AND HAMBURG LLP
122 EAST 42ND STREET
SUITE 4000
NEW YORK, NY 10168

EXAMINER

KARLS, SHAY LYNN

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/501,904	PARK, HYO-MOON	
	Examiner	Art Unit	
	Shay L. Karls	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/7/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hyo-Moon (USPN 6230356).

Hyo-Moon teaches a center rod (not labeled, handle in figure 7) and an arcuately curved leaf spring (4; figure 1) connected to the fore-end tip (8) of the rod. The spring extends forwardly and curving upwardly from the tip. There are a plurality of bristle segments (9) disposed on the leaf spring, with bristles (2) inlaid in the segments extending from a bottom surface of the spring. There is an actuating member (25) including a forwardly disposed operating plate (figure 7, left most portion of element 25). The actuating member is slidably disposed on the rod so that the operating plate is slidable over a top surface of the spring for linearly extending the spring. The fore-end of the tip of the operating plate is slidable against a rearwardly facing and upwardly slanting surface of a fore-end segment of the plurality of bristle segments for pivoting the fore-end segment relative to the rod (figure 3 shows a different embodiment than figure 7, however the operating plate of figure 3 and figure 7 will act in the same way and contact the rearwardly facing, upwardly slanting portion (shown in figure 4) of the bristle segment located on the far left in figure 3).

With regards to claim 5, the actuating member is normally located against the rod (guide 20 in figure 7 holds the actuating member on the rod) and the actuating member includes a rearwardly disposed push button (grooves on 25 in figure 7). The push button enables sliding of the actuating member over the rod.

With regards to claim 6, the push button includes guide protrusions (not labeled but shown on figure 8 as the part of 25 located under element 9) extending from opposing side surfaces and the rod includes a guide cavity (20) to receive the protrusions.

With regards to claim 8, there are opposing side ribs (not labeled but shown in figure 8 as the part of 25 located on the sides of element 9) extending downwardly from the side edges of the operating plate. The opposing side ribs are capable of enclosing opposing side surfaces of a fore-end segment of the rod when the operating plate is disposed thereover.

Claims 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hyo-Moon (KR 195-362).

Hyo-Moon teaches a center rod (2) and an arcuately curved leaf spring (4) connected to the fore-end tip (figure 3) of the rod. The spring extends forwardly and curving upwardly from the tip. There are a plurality of bristle segments (9) disposed on the leaf spring, with bristles (6) inlaid in the segments extending from a bottom surface of the spring. There is an actuating member (16) including a forwardly disposed operating plate (5). The actuating member is slidably disposed on the rod so that the operating plate is slidable over a top surface of the spring for linearly extending the spring. The fore-end of the tip of the operating plate is slidable against a rearwardly facing and upwardly slanting surface of a fore-end segment of the plurality of bristle segments for pivoting the fore-end segment relative to the rod (figure 7 shows the

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rearwardly facing upwardly slanting surface of the bristle segment and figure 2 shows the operating plate contacting the surface of the bristle segment).

With regards to claim 5, the actuating member is normally located against the rod (20) and the actuating member includes a rearwardly disposed push button (15). The push button enables sliding of the actuating member over the rod.

With regards to claim 6, the push button includes guide protrusions (20) extending from opposing side surfaces and the rod includes a guide cavity (17) to receive the protrusions.

With regards to claim 7, there are protuberances (21 and 22) for holding the protrusion (20) in place so that the actuating member does not slide over the rod. By pressing downwardly on the button (15), the protrusion will become free from the protuberances (21 and 22) and allow the actuating member to slide over the rod.

With regards to claim 8, there are opposing side ribs (14) extending downwardly from the side edges of the operating plate. The opposing side ribs are capable of enclosing opposing side surfaces of a fore-end segment of the rod when the operating plate is disposed thereover.

With regards to claim 9, there is a flexible groove formed between the guide protrusions in the actuating member (17).

Response to Arguments

Applicant's arguments, filed 8/15/06, with respect to the rejection(s) of claim(s) Yeu ('073) and Chen ('248) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hyo-Moon ('362). Additionally, arguments filed 8/15/06, with respect to Hyo-Moon ('356), have been considered but are not considered persuasive.

Applicant argues that Hyo-Moon ('356) teaches that the foremost bristle segment provides a rearwardly facing top surface that is orientated at 90 degrees to the surface on which the operation plate slides. Additionally, the foremost bristle segment is incapable of pivoting relative to the toothbrush. The Examiner would like to point out that the claim language that the applicant has incorporated into the claims, that the fore-end tip of the operating plate is slidable against a rearward facing and upwardly slanting surface of a fore-end segment, does not overcome the Hyo-Moon ('356) reference. The claims include no limitations as to what the surface is slanting with respect to. As shown in figure 4 of Hyo-Moon ('356) and figure 6 of Hyo-Moon ('362) the rearward facing surface is slanted with respect to a vertical line and it is also slanted with respect to the longitudinal axis of the handle. When the spring is linearly extending from the rod, the rearward surface is slanted since there is no orientation as to what it needs to be slanted with respect to. Therefore, without a limitation as to what the slant is with respect to, any orientation of the brush will lead to a slanted rearward facing bristle segment. Similarly, the limitation that the slanting surface is used for pivoting the fore-end segment relative to the rod also needs an orientation. The fact that the fore-end segment is pivoted relative to the rod, is clearly shown in the Hyo-Moon references. The fore-end segment is flexed upward until the operating plate forces the spring to extend linearly causing the fore-end segment to pivot with respect to the rod. The operating plate slides against the upward slanting surface, to pivot the fore-end segment downwardly to form a linear toothbrush. It is suggested that the applicant include a relative orientation for both of the issues listed above. For example, orientate the slanted surface with respect to the longitudinal axis of the rod and orientate the pivoting bristle segment with respect to the longitudinal axis of the rod.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:00-4:30 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SKM

Slk
10/19/06


GLADYS P. CORCORAN
SUPERVISORY PATENT EXAMINER